floating said stage on said base member in a differential exhaust system by blowing a second gas and sucking said second gas; and

setting the permissible absorbency limits of said second gas relative to said exposure beam higher than that of said first gas.

5. (Amended) An exposure method according to claim 4, wherein said first gas and said second gas are different gases from each other.

12. (Amended) An exposure apparatus in which a second object is exposed, via a projection system, with an exposure beam that has passed a pattern of a first object, said exposure apparatus comprising:

a stage that holds said first object or said second object and moves on a base member;

a chamber that substantially hermetically seals a space enclosing said stage;

a gas supply device that supplies a first gas that transmits said exposure beam into said chamber;

an air bearing device that floats said stage on said base member in a differential exhaust system by blowing a second gas and sucking said second gas; and

a setting device that sets the permissible absorbency limits of said second gas relative to said exposure beam higher than that of said first gas.

[Please add new claims 16-45 as follows:]

--16. (New) An exposure method for exposing a second object, via a projection system, with an exposure beam that has passed through a pattern of a first object, comprising:

enclosing a first space, of spaces between the projection system and the second object, on the projection system side by an enclosure member in which a first aperture is formed in a region in which the exposure beam is transmitted,

supplying a gas that transmits the exposure beam into the enclosure member from a supply port provided in the enclosure member, and

exhausting the gas supplied into the enclosure member from a second aperture different from the first aperture.--

--17. (New) The exposure method as set forth in claim 16, wherein

in the first space, the gas is supplied from the supply port arranged on one side so as to surround an optical path of the exposure beam, and

in the first space, the gas is exhausted from the second aperture arranged on the other side so as to surround an optical path of the exposure beam.--

--18. (New) The exposure method as set forth in claim 17,

wherein the second aperture is an exhaust port arranged facing the supply port.--

--19. (New) The exposure method as set forth in claim 18,

wherein in the first space, the gas flows in one direction.--

--20. (New) The exposure method as set forth in claim 16,

wherein the exposure beam is vacuum ultraviolet light with 180 nm wavelength or less, and the gas that transmits the exposure beam is a noble gas or nitrogen gas.--

--21. (New) The exposure method as set forth in claim 16,

wherein a measuring beam and a reference beam are irradiated onto a stage and a predetermined reference member, respectively, that move along with the first object or the second object, and a position of the first object or the second object with respect to the reference member is measured; and

the optical paths of the measuring beam and the reference beam are made to have a gas atmosphere with approximately the same contamination degree of impurities that absorb the exposure beam.--

--22. (New) The exposure method as set forth in claim 16,

wherein a substance from the second object generated by irradiating the exposure beam is exhausted along with the gas flowing through the first space.--

--23. (New) The exposure method as set forth in claim 16,

wherein the enclosure member has an aperture in a region in which a detecting beam for detecting a position of the second object is transmitted.--

--24. (New) An exposure method for exposing a second object, via a projection system, with an exposure beam that has passed through a pattern of a first object, comprising:

enclosing a first space, of spaces between the projection system and the second object, on the projection system side by an enclosure member in which a first aperture is formed in a region in which the exposure beam is transmitted,

supplying a first gas that transmits the exposure beam into the enclosure member from a gas supply port provided in the enclosure member,

exhausting a substance generated from the second object enclosed in the enclosure member, along with the first gas, from a second aperture different from the first aperture, and

exhausting a substance generated from the second object and existing in a second space from the second space.--

--25. (New) The exposure method as set forth in claim 24,

wherein the gas supply port and the second aperture different from the first aperture are arranged facing each other.--

--26. (New) The exposure method as set forth in claim 25,

wherein in the first space, the first gas flows in one direction.--

--27. (New) The exposure method as set forth in claim 24,

wherein the second space is formed by arranging the enclosure member so as not to contact the second object.--

--28. (New) The exposure method as set forth in claim 27,

wherein an interval between the enclosure member and the second object is 5 mm or less.--

--29. (New) The exposure method as set forth in claim 24,

wherein a second gas transmitting the exposure beam is supplied to a chamber containing the second object and a stage holding the second object, and

the second gas flows into the second space.--

--30. (New) The exposure method as set forth in claim 29,

wherein the chamber has an exhaust port that exhausts a substance generated from the second object and existing in the second space.--

--31. (New) The exposure method as set forth in claim 29,

wherein a contamination degree of impurities that absorb the exposure beam of the first gas in the first space is lower than that of the second gas in the second space.--

--32. (New) An exposure apparatus that exposes a second object, via a projection system, with an exposure beam that has passed through a pattern of a first object, comprising:

an enclosure member arranged between the projection system and the second object and surrounding a first space, of spaces between the projection system and the second object, on the projection system side;

a first gas supply mechanism arranged in the enclosure member and supplying a first gas, which transmits the exposure beam, into the enclosure member; and

a first exhaust mechanism arranged in the enclosure member that exhausts the gas within the enclosure member from a second aperture different from a first aperture through which the exposure beam is transmitted.--

--33. (New) The exposure apparatus as set forth in claim 32,

wherein the enclosure member has a supply port arranged on one side and sandwiching an optical path of the exposure beam and an exhaust port arranged on the other side and sandwiching the optical path of the exposure beam, and

the first gas supply mechanism is connected to the supply port, and the first exhaust mechanism is connected to the second aperture.--

--34. (New) The exposure apparatus as set forth in claim 33,

wherein the enclosure member is arranged so as not to contact the second object.--

--35. (New) The exposure apparatus as set forth in claim 34,

wherein the enclosure member is supported by the projection system.--

--36. (New) The exposure apparatus as set forth in claim 34,

wherein an interval between the enclosure member and the second object is 5 mm or less.--

--37. (New) The exposure apparatus as set forth in claim 33,

wherein the enclosure member is provided with an aperture plate in which the first aperture through which the exposure light is transmitted is formed and a partition wall member arranged between the aperture plate and the projection system, and

the supply port and the exhaust port are arranged in the partition wall member.--

--38. (New) The exposure apparatus as set forth in claim 32, further comprising:

a chamber which substantially seals a second space, of the spaces between the projection system and the second object, on the second object side, excluding the aperture of the enclosure member, and

a second gas supply mechanism connected to the chamber and supplying the second gas, which transmits through the exposure beam, into the chamber.--

--39. (New) The exposure apparatus as set forth in claim 38, further comprising:

a stage contained within the chamber and holding the second object;

a reference member arranged in the projection system and being stationary with respect to the projection system; and

an interferometer that irradiates a measuring beam and a reference beam onto the stage and the reference member, respectively, and measures a position of the first object or the second object with respect to the reference member.--

--40. (New) The exposure apparatus as set forth in claim 39,

wherein a contamination degree of impurities that absorb the exposure beam is approximately the same in an optical path of the measuring beam and an optical path of the reference beam.--

--41. (New) The exposure apparatus as set forth in claim 32, further comprising:

a second exhaust mechanism arranged at a position different from a position of the first exhaust mechanism, and exhausting a substance generated from the second object and existing in a second space, of the spaces between the projection system and the second object on the second object side.--

--42. (New) The exposure apparatus as set forth in claim 41, further comprising:

a chamber arranged around a stage that holds the second object, and containing the stage, and

a second gas supply mechanism connected to the chamber and supplying a second gas, which transmits the exposure beam, into the chamber,

wherein the second exhaust mechanism is arranged in the chamber.--

--43. (New) An exposure apparatus that exposes a second object, via a projection system, with an exposure beam that has passed through a pattern of a first object, comprising:

an aperture plate arranged between the projection system and the second object and in which an aperture is formed for allowing transmission of a detecting beam for detecting a position of the second object; and